

Combined Declaration and Power of Attorney for Patent Application

Docket Number: 0609.4280001/JAG/RCM

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter that is claimed and for which a patent is sought on the invention entitled Method of Inducing Vasodilation and Treating Pulmonary Hypertension Using Adenoviral-Mediated Transfer of the Nitric Oxide Synthase Gene, the specification of which is attached hereto unless the following box is checked:

- was filed on July 17, 1997;
 as United States Application Number or PCT International Application Number 08/896,053; and
was amended on _____ (if applicable).

APR 13 1998

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

RENT & TRAPET

I acknowledge the duty to disclose information that is material to patentability as defined in 37 C.F.R. § 1.56.

I hereby claim foreign priority benefits under 35 U.S.C. § 119(a)-(d) or § 365(b) of any foreign application(s) for patent or inventor's certificate, or § 365(a) of any PCT international application, which designated at least one country other than the United States listed below, and have also identified below any foreign application for patent or inventor's certificate, or PCT international application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application(s)	Priority Claimed
<hr style="border-top: 1px solid black; margin-bottom: 5px;"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No
(Application No.)	(Country)
<hr style="border-top: 1px solid black; margin-bottom: 5px;"/>	(Day/Month/Year Filed)
<hr style="border-top: 1px solid black; margin-bottom: 5px;"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No
(Application No.)	(Country)
<hr style="border-top: 1px solid black; margin-bottom: 5px;"/>	(Day/Month/Year Filed)

I hereby claim the benefit under 35 U.S.C. § 119(e) of any United States provisional application(s) listed below.

<hr style="border-top: 1px solid black; margin-bottom: 5px;"/>	<u>July 17, 1996</u>	<hr style="border-top: 1px solid black; margin-bottom: 5px;"/>
(Application No.)	(Filing Date)	

<hr style="border-top: 1px solid black; margin-bottom: 5px;"/>	<hr style="border-top: 1px solid black; margin-bottom: 5px;"/>	<hr style="border-top: 1px solid black; margin-bottom: 5px;"/>
(Application No.)	(Filing Date)	

I hereby claim the benefit under 35 U.S.C. § 120 of any United States application(s), or under § 365(c) of any PCT international application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT international application in the manner provided by the first paragraph of 35 U.S.C. § 112, I acknowledge the duty to disclose information that is material to patentability as defined in 37 C.F.R. § 1.56 that became available between the filing date of the prior application and the national or PCT international filing date of this application.

<hr style="border-top: 1px solid black; margin-bottom: 5px;"/>	<hr style="border-top: 1px solid black; margin-bottom: 5px;"/>	<hr style="border-top: 1px solid black; margin-bottom: 5px;"/>
(Application No.) abandoned)	(Filing Date)	(Status - patented, pending,
<hr style="border-top: 1px solid black; margin-bottom: 5px;"/>	<hr style="border-top: 1px solid black; margin-bottom: 5px;"/>	<hr style="border-top: 1px solid black; margin-bottom: 5px;"/>
(Application No.) abandoned)	(Filing Date)	(Status - patented, pending,

I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:

Robert G. Sterne, Esq., Reg. No. 28,912; Edward J. Kessler, Esq., Reg. No. 25,688; Jorge A. Goldstein, Esq., Reg. No. 29,021; Samuel L. Fox, Esq., Reg. No. 30,353; David K.S. Cornwell, Esq., Reg. No. 31,944; Robert W. Esmond, Esq., Reg. No. 32,893; Tracy-Gene G. Durkin, Esq., Reg. No. 32,831; Michele A. Cimbala, Esq., Reg. No. 33,851; Michael B. Ray, Esq., Reg. No. 33,997; Robert E. Sokohl, Esq., Reg. No. 36,013; and Eric K. Steffe, Esq., Registration No. 36,688.

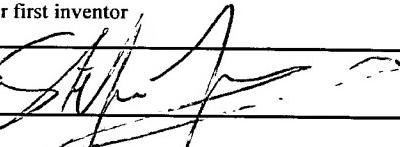
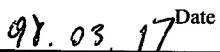
Send Correspondence to:

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
1100 New York Avenue, N.W.
Suite 600
Washington, D.C. 20005-3934

Direct Telephone Calls to:

Jorge A. Goldstein, Esq.
(202) 371-2600

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name of sole or first inventor Stefan Janssens		 Date
Inventor's signature		
Residence Heverlee, Belgium		
Citizenship Belgian		
Post Office Address Koning Leopold III - Iaan 53, 3001 Heverlee, Belgium		
Full name of second inventor Kenneth D. Bloch		
Second inventor's signature		Date
Residence Brooklyn, Massachusetts		
Citizenship		
Post Office Address 80 Park Street, No. 32, Brooklyn, Massachusetts 02146		

I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:

Robert G. Sterne, Esq., Reg. No. 28,912; Edward J. Kessler, Esq., Reg. No. 25,688; Jorge A. Goldstein, Esq., Reg. No. 29,021; Samuel L. Fox, Esq., Reg. No. 30,353; David K.S. Cornwell, Esq., Reg. No. 31,944; Robert W. Esmond, Esq., Reg. No. 32,893; Tracy-Gene G. Durkin, Esq., Reg. No. 32,831; Michele A. Cimbala, Esq., Reg. No. 33,851; Michael B. Ray, Esq., Reg. No. 33,997; Robert E. Sokohl, Esq., Reg. No. 36,013; and Eric K. Steffe, Esq., Registration No. 36,688.

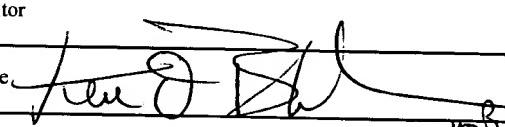
Send Correspondence to:

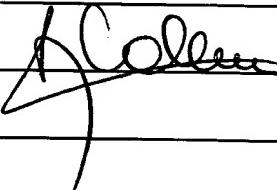
STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
1100 New York Avenue, N.W.
Suite 600
Washington, D.C. 20005-3934

Direct Telephone Calls to:

Jorge A. Goldstein, Esq.
(202) 371-2600

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name of sole or first inventor Stefan Janssens	Date
Inventor's signature	
Residence Heverlee, Belgium	
Citizenship Belgian	
Post Office Address Koning Leopold III - Iaan 53, 3001 Heverlee, Belgium	
Full name of second inventor Kenneth D. Bloch	
Second inventor's signature 	12/23/97 Date
Residence Brooklyn, Massachusetts	
Citizenship	
Post Office Address 80 Park Street, No. 32, Brooklyn, Massachusetts 02146	

Full name of third inventor Désiré Collen	
Third inventor's signature 	Date 98.03.17
Residence Winksele, Belgium	
Citizenship Belgian	
Post Office Address Schoonzichtlaan 20, 3020 Winksele, Belgium	
Full name of fourth inventor	
Fourth inventor's signature	Date
Residence	
Citizenship	
Post Office Address	
Full name of fifth inventor	
Fifth inventor's signature	Date
Residence	
Citizenship	
Post Office Address	

P:\USERS\BOBM\0609\428000\4280001\COMDEC.WPD
SKGF Rev. 7/21/97mc

(Supply similar information and signature for subsequent joint inventors, if any)

Certificate Under 37 C.F.R. § 3.73(b)

Applicant: Stefan Janssens, Kenneth D. Bloch, and Désiré Collen

Application No: 08/896,053

Filed: July 17, 1997

For: Method of Inducing Vasodilation and Treating Pulmonary Hypertension Using Adenoviral-Mediated Transfer of the Nitric Oxide Synthase Gene

The General Hospital Corporation, a corporation

APR 13 1998

(Type of Assignee)

(Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

certifies that it is an assignee of the patent application identified above by virtue of either:

- A. ~~Patent & Trademark Office~~ An Assignment from the inventor Kenneth D. Bloch of the patent application identified above. The assignment was recorded in the Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached.
[or]

- B. [] A chain of title from the inventor(s) of the patent application identified above to the current assignee as shown below:

1. From: _____ To: _____
The document was recorded in the Patent and Trademark Office at
Reel _____, Frame _____, or for which a copy thereof is attached.

2. From: _____ To: _____
The document was recorded in the Patent and Trademark Office at
Reel _____, Frame _____, or for which a copy thereof is attached.

3. From: _____ To: _____
The document was recorded in the Patent and Trademark Office at
Reel _____, Frame _____, or for which a copy thereof is attached.

[] Additional documents in the chain of title are listed on a supplemental sheet.

[X] Copies of assignments or other documents in the chain of title are attached.

The undersigned (whose title is supplied below) is empowered to act on behalf of the assignee.

I hereby declare that all statements made herein of my own knowledge are true, and that all statements made on information and belief are believed to be true; and further, that these statements are made with the knowledge that willful false statements, and the like so made, are punishable by fine or imprisonment, or both under Section 1001, Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Date: July 22, 1997

Name: DAVID J. GLASS, Ph.D.
ASSOCIATE DIRECTOR FOR PATENTS
OFFICE OF TECHNOLOGY AFFAIRS

Title: _____

Signature: Lyn

ASSIGNMENT

In consideration of the sum of One Dollar (\$1.00) or equivalent and other good and valuable consideration paid to each of the undersigned: Kenneth D. Bloch, the undersigned hereby sell(s) and assign(s) to The General Hospital Corporation (the Assignee) his/her entire right, title and interest

check applicable box(es) for the United States of America (as defined in 35 U.S.C. § 100),
 and throughout the world,

in the invention(s) known as Method of Inducing Vasodilation and Treating Pulmonary Hypertension Using Adenoviral-Mediated Transfer of the Nitric Oxide Synthase Gene for which application(s) for patent in the United States of America has (have) been executed by the undersigned on _____ (also known as United States Application No. 08/896,053, filed July 17, 1997), in any and all applications thereon, in any and all Letters Patent(s) therefor, and in any and all reissues, extensions, renewals, reexaminations of such applications or Letters Patent(s) and divisional and continuation applications thereof, to the full end of the term or terms for which such Letters Patent(s) issue, including the right to collect for all past, present and future damages, such entire right, title and interest to be held and enjoyed by the above-named Assignee to the same extent as they would have been held and enjoyed by the undersigned had this assignment and sale not been made.

The undersigned agree(s) to execute all papers necessary in connection with the application(s) and any continuing (continuation, divisional, or continuation-in-part), reissue, reexamination or corresponding application(s) thereof and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.

The undersigned agree(s) to execute all papers necessary in connection with any interference that may be declared concerning the application(s) or any continuing (continuation, divisional, or continuation-in-part), reissue or reexamination application thereof and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with such interference.

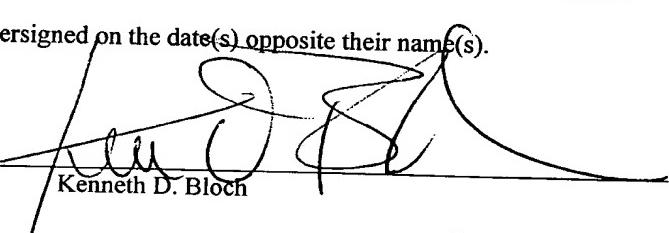
The undersigned hereby represents that the undersigned has full right to convey the entire interest herein assigned, and that the undersigned has not executed, and will not execute, any agreement in conflict therewith.

The undersigned hereby grant(s) Robert Greene Sterne, Esquire, Registration No. 28,912; Edward J. Kessler, Esquire, Registration No. 25,688; Jorge A. Goldstein, Esquire, Registration No. 29,021; Samuel L. Fox, Esquire, Registration No. 30,353; David K.S. Cornwell, Esquire, Registration No. 31,944; Robert W. Esmond, Esquire, Registration No. 32,893; Tracy-Gene G. Durkin, Esquire, Registration No. 32,831; Michele A. Cimbala, Esquire, Registration No. 33,851; Michael B. Ray, Esquire, Registration No. 33,997; Robert E. Sokohl, Esquire, Registration No. 36,013; and Eric K. Steffe, Esquire, Registration No. 36,688, of STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C., 1100 New York Avenue, N.W., Suite 600, Washington, D.C. 20005-3934, power to insert in this assignment any further identification that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

IN WITNESS WHEREOF, executed by the undersigned on the date(s) opposite their name(s).

Date: 1/21/98

Signature of Inventor:



Kenneth D. Bloch

P:\USERS\BOBM\0609\428000\428000\ASSIGNMT.WPD

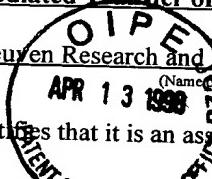
Certificate Under 37 C.F.R. § 3.73(b)

Applicants: Stefan Janssens, Kenneth D. Bloch, and Désiré Collen

Application No: 08/896,053

Filed: July 17, 1997

For: Method of Inducing Vasodilation and Treating Pulmonary Hypertension Using Adenoviral-Mediated Transfer of the Nitric Oxide Synthase Gene


Leuven Research and Development, V.Z.W.

(Name of Assignee)

(Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

certifies that it is an assignee of the patent application identified above by virtue of either:

- A. An assignment from inventors Stefan Janssens and Désiré Collen of the patent application identified above. The assignment was recorded in the Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached.
[or]
- B. A chain of title from the inventor(s) of the patent application identified above to the current assignee as shown below:

1. From: _____ To: _____
The document was recorded in the Patent and Trademark Office at
Reel _____, Frame _____, or for which a copy thereof is attached.
2. From: _____ To: _____
The document was recorded in the Patent and Trademark Office at
Reel _____, Frame _____, or for which a copy thereof is attached.
3. From: _____ To: _____
The document was recorded in the Patent and Trademark Office at
Reel _____, Frame _____, or for which a copy thereof is attached.

[] Additional documents in the chain of title are listed on a supplemental sheet.

Copies of assignments or other documents in the chain of title are attached.

The undersigned (whose title is supplied below) is empowered to act on behalf of the assignee.

I hereby declare that all statements made herein of my own knowledge are true, and that all statements made on information and belief are believed to be true; and further, that these statements are made with the knowledge that willful false statements, and the like so made, are punishable by fine or imprisonment, or both under Section 1001, Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Date: 98.03.17

Name: Hans Coes

Title: Director

Signature: Hans -

ASSIGNMENT

In consideration of the sum of One Dollar (\$1.00) or equivalent and other good and valuable consideration paid to each of the undersigned: Stefan Janssens and Désiré Collen, the undersigned hereby sell(s) and assign(s) to Leuven Research and Development, V.Z.W. (the Assignee) his/her entire right, title and interest

check applicable box(es) for the United States of America (as defined in 35 U.S.C. § 100),
 and throughout the world,

in the invention(s) known as Method of Inducing Vasodilation and Treating Pulmonary Hypertension Using Adenoviral-Mediated Transfer of the Nitric Oxide Synthase Gene for which application(s) for patent in the United States of America has (have) been executed by the undersigned on 98 - 03 - 17 (also known as United States Application No. 08/896,053, filed July 17, 1997), in any and all applications thereon, in any and all Letters Patent(s) therefor, and in any and all reissues, extensions, renewals, reexaminations of such applications or Letters Patent(s) and divisional and continuation applications thereof, to the full end of the term or terms for which such Letters Patent(s) issue, including the right to collect for all past, present and future damages, such entire right, title and interest to be held and enjoyed by the above-named Assignee to the same extent as they would have been held and enjoyed by the undersigned had this assignment and sale not been made.

The undersigned agree(s) to execute all papers necessary in connection with the application(s) and any continuing (continuation, divisional, or continuation-in-part), reissue, reexamination or corresponding application(s) thereof and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.

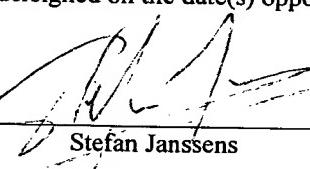
The undersigned agree(s) to execute all papers necessary in connection with any interference that may be declared concerning the application(s) or any continuing (continuation, divisional, or continuation-in-part), reissue or reexamination application thereof and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with such interference.

The undersigned hereby represents that the undersigned has full right to convey the entire interest herein assigned, and that the undersigned has not executed, and will not execute, any agreement in conflict therewith.

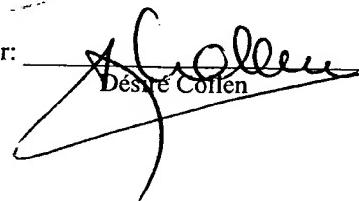
The undersigned hereby grant(s) Robert Greene Sterne, Esquire, Registration No. 28,912; Edward J. Kessler, Esquire, Registration No. 25,688; Jorge A. Goldstein, Esquire, Registration No. 29,021; Samuel L. Fox, Esquire, Registration No. 30,353; David K.S. Cornwell, Esquire, Registration No. 31,944; Robert W. Esmond, Esquire, Registration No. 32,893; Tracy-Gene G. Durkin, Esquire, Registration No. 32,831; Michele A. Cimbala, Esquire, Registration No. 33,851; Michael B. Ray, Esquire, Registration No. 33,997; Robert E. Sokohl, Esquire, Registration No. 36,013; and Eric K. Steffe, Esquire, Registration No. 36,688, of STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C., 1100 New York Avenue, N.W., Suite 600, Washington, D.C. 20005-3934, power to insert in this assignment any further identification that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

IN WITNESS WHEREOF, executed by the undersigned on the date(s) opposite their name(s).

Date: 98 - 03 - 17 Signature of Inventor:


Stefan Janssens

Date: 98 - 03 - 17 Signature of Inventor:


Désiré Collen

POWER OF ATTORNEY FROM MULTIPLE ASSIGNEES

(1) The General Hospital Corporation, a corporation of Massachusetts, having a principal place of business at Fruit Street, Boston, Massachusetts, and (2) Leuven Research and Development, V.Z.W., a corporation of Belgium, having a principal place of business at Groot Begijnhof, Benedenstraat 59, 3000 Leuven, Belgium, are, collectively, assignees of the entire right, title and interest for the United States of America (as defined in 35 U.S.C. § 100), by reason of an Assignment executed to Assignee (1) on January 21, 1998 and to Assignee (2) on _____ of an invention known as Method of Inducing Vasodilation and Treating Pulmonary Hypertension Using Adenoviral-Mediated Transfer of the Nitric Oxide synthase Gene (Attorney Docket No. 0609.4280001), that is disclosed and claimed in a patent application of the same title by the inventors Stefan Janssens, Kenneth D. Bloch and Désiré Collen (said application filed on July 17, 1997 at the U.S. Patent and Trademark Office, having Application Number 08/896,053).

The Assignees hereby appoint the following U.S. attorneys to prosecute this application and any continuation, divisional, continuation-in-part, or reissue application thereof, and to transact all business in the U.S. Patent and Trademark Office connected therewith: Robert Greene Sterne, Registration No. 28,912; Edward J. Kessler, Registration No. 25,688; Jorge A. Goldstein, Registration No. 29,021; Samuel L. Fox, Registration No. 30,353; David K.S. Cornwell, Registration No. 31,944; Robert W. Esmond, Registration No. 32,893; Tracy-Gene G. Durkin, Registration No. 32,831; Michele A. Cimbala, Registration No. 33,851; Michael B. Ray, Registration No. 33,997; Robert E. Sokohl, Esquire Registration No. 36,013; and Eric K. Steffe, Registration No. 36,688. The Assignees hereby grant said attorneys the power to insert on this Power of Attorney any further identification that may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office.

Send correspondence to:

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
1100 New York Avenue, N.W.
Suite 600
Washington, D.C. 20005-3934
U.S.A.

Direct phone calls to 202-371-2600.

FOR: The General Hospital Corporation
SIGNATURE: [Signature]
BY: DAVID J. GLASS, Ph.D.
TITLE: ASSOCIATE DIRECTOR FOR PATENTS
OFFICE OF TECHNOLOGY AFFAIRS
DATE: January 22, 1998

FOR: _____
SIGNATURE: _____
BY: _____
TITLE: _____
DATE: _____

POWER OF ATTORNEY FROM MULTIPLE ASSIGNEES

(1) The General Hospital Corporation, a corporation of Massachusetts, having a principal place of business at Fruit Street, Boston, Massachusetts, and (2) Leuven Research and Development, V.Z.W., a corporation of Belgium, having a principal place of business at Groot Begijnhof, Benedenstraat 59, 3000 Leuven, Belgium, are, collectively, assignees of the entire right, title and interest for the United States of America (as defined in 35 U.S.C. § 100), by reason of an Assignment executed to Assignee (1) on _____ and to Assignee (2) on 98.03.17 of an invention known as Method of Inducing Vasodilation and Treating Pulmonary Hypertension Using Adenoviral-Mediated Transfer of the Nitric Oxide Synthase Gene (Attorney Docket No. 0609.4280001), that is disclosed and claimed in a patent application of the same title by the inventors Stefan Janssens, Kenneth D. Bloch and Désiré Collen (said application filed on July 17, 1997 at the U.S. Patent and Trademark Office, having Application Number 08/896.053).

The Assignees hereby appoint the following U.S. attorneys to prosecute this application and any continuation, divisional, continuation-in-part, or reissue application thereof, and to transact all business in the U.S. Patent and Trademark Office connected therewith: Robert Greene Sterne, Registration No. 28,912; Edward J. Kessler, Registration No. 25,688; Jorge A. Goldstein, Registration No. 29,021; Samuel L. Fox, Registration No. 30,353; David K.S. Cornwell, Registration No. 31,944; Robert W. Esmond, Registration No. 32,893; Tracy-Gene G. Durkin, Registration No. 32,831; Michele A. Cimbala, Registration No. 33,851; Michael B. Ray, Registration No. 33,997; Robert E. Sokohl, Esquire Registration No. 36,013; and Eric K. Steffe, Registration No. 36,688. The Assignees hereby grant said attorneys the power to insert on this Power of Attorney any further identification that may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office.

Send correspondence to:

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
1100 New York Avenue, N.W.
Suite 600
Washington, D.C. 20005-3934
U.S.A.

Direct phone calls to 202-371-2600.

FOR: _____

SIGNATURE: _____

BY: _____

TITLE: _____

DATE: _____

FOR: Leuven Research and Development V.Z.W.

SIGNATURE: Hans Bloch _____

BY: Hans Bloch _____

TITLE: Director _____

DATE: 98.03.17 _____